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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/814,236	04/01/2004	Gregory Plos	05725.1317-00	5353
7590	03/24/2006			EXAMINER
Thomas L. Irving FINNEGAN, HENDERSON, FARABOW, GARRETT & DUNNER, L.L.P. 1300 I Street, N.W. Washington, DC 20005-3315			ELHILO, EISA B	
			ART UNIT	PAPER NUMBER
			1751	
DATE MAILED: 03/24/2006				

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	10/814,236	PLOS ET AL.	
	<b>Examiner</b>	<b>Art Unit</b>	
	Eisa B. Elhilo	1751	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) Responsive to communication(s) filed on 01 April 2004.
- 2a) This action is FINAL.                    2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) Claim(s) 1-64 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) Claim(s) \_\_\_\_\_ is/are allowed.
- 6) Claim(s) 1-15 and 18-64 is/are rejected.
- 7) Claim(s) 16 and 17 is/are objected to.
- 8) Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on \_\_\_\_\_ is/are: a) accepted or b) objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) All    b) Some \* c) None of:
  1. Certified copies of the priority documents have been received.
  2. Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)                     |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | Paper No(s)/Mail Date. _____ .  |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date <u>9/16/2004</u> . | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
|  | 6) <input type="checkbox"/> Other: _____ .                                  |

Claims 1-64 are pending in this application.

## **DETAILED ACTION**

### ***Claim Rejections - 35 USC § 102***

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

### ***Claim Rejections - 35 USC § 103***

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1, 4, 7-15, 18-20, 26-27, 29-30, 32-36, 39-43, 46, 49 and 52-64 are rejected under 35 U.S.C. 102(b) as being anticipated by or, in alternative, under 103 (a) as obvious over Matsunaga et al. (US 2001/0054206 A1).

Matsunaga et al. (US' 206 A1) teaches a hair dyeing composition comprising a fluorescent azomethine compound of a formula (2) which is identical to the claimed formula (F2) as claimed in claims 1, 11 and 14-15 (see page 1, formula (2)) and hydroxypropyl guar gum as non-associative thickening polymer as claimed in claims 1 and 4 (see page 4, Table 1, Example 2), wherein the fluorescent compound is present in the composition in the amounts of 0.01 to 20%, 0.05 to 10% or 0.1 to 5% as claimed in claims 18-20 (see pages 2-3, paragraph, 0016), wherein the composition also para-phenylenediamine as an oxidation base in the amount

of 0.5 to 10% by weight as claimed in claims 26-27 (see page 3, paragraph, 0020 and paragraph, 0022), m-phenylenediamine as a coupler in the amount of 0.5 to 10% as claimed in claims 29-30 (see page 3, paragraphs, 0021 and 0022), oxidizing agents of hydrogen peroxide, perborates and laccase (four-electron oxidoreductase) enzyme as claimed in claims 32-35 (see page 3, paragraphs, 0018-0019). Matsunaga et al. (US' 206 A1) also teaches a process for dyeing hair comprising applying to the hair the dyeing composition as described above and wherein the dyeing composition is applied to the hair after mixing with the oxidizing composition as claimed in claims 36, 39, 49 and 55-59 (see page 3, paragraphs, 0026 and 0027). Matsunaga et al. (US' 206 A1) further teaches and discloses a multi-compartment device for dyeing hair as claimed in claim 46 (see page 3, paragraph, 0026). Matsunaga et al. (US' 206 A1) teaches the same dyeing ingredients of non-associative thickening polymer and a fluorescent dye identical to the fluorescent dye of the claimed formula (F2) in the claimed amounts, which inherently would have the same physical properties of reflectances, color properties (orange range) and solubility in specific medium as those claimed and wherein the dyeing composition also can be applied to the claimed type of hair with the claimed tones as claimed in claims 7-10, 12-13, 40-42, 52-54 and 60-64. Matsunaga et al. (US' 206 A1) teaches all the limitations of the instant claims. Hence, Matsunaga et al. (US' 206 A1) anticipates the claims.

However, the claims in the alternative, under 35 U.S.C. 103(a) are obvious over Matsunaga et al. (US' 206 A1), because the reference teaches a hair dyeing composition comprising the same claimed dyeing ingredients of oxidation bases, fluorescent compound, non-associative thickening polymer and oxidizing agents as claimed, and, thus the chemical composition and its properties are inseparable. Therefore, if the prior art teaches the identical

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chemical structure, the properties applicant discloses and/or claims are necessarily present. (see *In re Spada*, 911 F. 2d 705, 709, 15 USPQ2d 1655, 1658 (Fed. Cir. 1990), and, thus, a person of the ordinary skill in the art would expect such a dyeing composition to have ingredients having similar physical properties as those claimed including reflectances, color properties and solubility as claimed and wherein the composition can be applied to skin or similar hair having similar tones as claimed. Absent unexpected results.

3       Claims 28 and 31 are rejected under 35 U.S.C. 103(a) as being unpatentable over Matsunaga et al. (US 2001/0054206 A1).

Matsunaga et al. (US' 206 A1) as described above, does not teach the percentage amounts of oxidation bases and couplers as claimed.

However, it would have been obvious to one having ordinary skill in the art at the time the invention was made to formulate thus a composition because Matsunaga et al. teaches percentage amounts of oxidation bases and coupler components that overlapped with the claimed ranges (see page 3, paragraph, 0022), and, thus, a person of the ordinary skill in the art would be motivated to optimize the amount of these oxidation bases and couplers in the composition so as to get the maximum effective amount. The person of ordinary skill in the art would expect such composition to have the similar properties to those claimed, absent unexpected results. Furthermore, as the optimization of results, a patent will not be granted based upon the optimization of result effective variable when the optimization is obtained through routine experimentation unless there is a showing of unexpected results which properly rebuts the prima facie case of obviousness, see *In re Boesch*, 617 F.2d 272, 276, 205 USPQ 215, 219 (CCPA

1980). See also *In re Woodruff*, 919 F. 2d 1575, 1578, 16 USPQ2d 1934, 1936-37 (Fed. Cir. 1990), and *In re Aller*, 220 F.2d 454, 456, 105 USPQ 233, 235 (CCPA 1955).

4 Claims 2-3, 5-6, 37-38, 44-45, 47-48 and 50-51 are rejected under 35 U.S.C. 103(a) as being unpatentable over Matsunaga et al. (US 2001/0054206 A1) in view of Lang et al. (WO 99/36045). The US Patent No. 6,576,024 B1, is used in this rejection as English translation of the Patent WO 99/36045.

The disclosure of Matsunaga et al. (US' 206 A1) as described above, does not teach or disclose the specific species of the non-associative thickening polymers as claimed.

However, Matsunaga et al. (US' 206 A1) suggests the use of non-associative thickening polymers such as hydroxylpropyl guar gum in the dyeing composition (see page 4, paragraph, 0034. Table 1, Example 2).

Lang et al. (US' 024 B1) in other analogous art of hair dyeing formulation, teaches a composition comprising non-associative thickening polymers such as nonionic guar gums, scleroglucan gums (biopolysaccharide of microbial origin) derived from plant exudates such as gum Arabic as claimed in claims 2-3, 37-38, 44-45, 47-48 and 50-51 (see col. 7, lines 10-21) and wherein the thickening polymers are presented in the composition in the amounts of 0.01 to 10% and 0.1 to 5% as claimed in claims 5-6 (see col. 7, lines 26-30).

Therefore, in view of the teaching of the secondary reference, one having ordinary skill in the art at the time the invention was made would be motivated to modify the composition of Matsunaga et al. (US' 206 A1) by incorporating non-associative thickening polymers as taught by Land et al. (US' 024 B1) to arrive at the claimed invention. Such a modification would be obvious because Matsunaga et al. (US' 206 A1) as a primary reference suggests the use of the

natural and synthetic polymers in the hair dyeing composition (see page 3, paragraph, 0025) and also teaches hydroxypropyl guar gum (see page 4, paragraph, 0034, Table 1, Example 2). Lang et al. (US' 024 B1) as a secondary reference clearly teaches the claimed species biopolysaccharide gums of scleroglucan and gum Arabic, and, thus, a person of the ordinary skill in the art would be motivated to incorporate the claimed species biopolysaccharide gums of scleroglucan and gum Arabic as taught by Lang et al. in the dyeing composition of Matsunaga et al. with a reasonable expectation of success for improving the performance of the dyeing composition and would expect such a composition to have similar properties to those claimed, absent unexpected results.

5       Claims 21-24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Matsunaga et al. (US 2001/0054206 A1) in view of Vandenbossche et al. (US 6,391,062 B1).

The disclosure of Matsunaga et al. (US' 206 A1) as described above, does not teach or disclose the claimed species of the direct dyes.

However, Matsunaga et al. (US' 206 A1) suggests the use of other direct dyes in the keratin fiber formulation (see page, 2, paragraph, 0015).

Vandenbossche et al. (US' 062 B1) in other analogous art of keratin fibers dyeing formulation, teaches a dyeing composition comprising direct dyes such as nitrobenzene and anthraquinone dyes in the amounts of 0.5 to 10% which overlapped with the claimed ranges as claimed in claims 21-24 (see col. 7, lines 62-67 and col. 8, lines 1-3).

Therefore, in view of the teaching of the secondary reference, one having ordinary skill in the art at the time the invention was made would be motivated to modify the composition of Matsunaga (US' 206 A1) by incorporating the direct dyes in the claimed amounts as taught by

Vandenbossche et al. (US' 062 B1) to make such a composition. Such a modification would be obvious because the primary reference suggest the use of direct dyes in the dyeing composition (see page 2, paragraph, 0015). Vandenbossche et al. (US' 062 B1) as a secondary reference clearly teaches and discloses direct dyes of the claimed species nitrobenzene and anthraquinone dyes to broaden the range of shades and to obtain varied shades (see col. 7, lines 59-65), and, thus, a person of the ordinary skill in the art would be motivated to incorporate the direct dyes as taught by Vandenbossche et al. (US' 062 B1) in the dyeing composition of Matsunaga (US' 206 A1) with a reasonable expectation of success for obtaining varied shades and would expect such a composition to have similar properties to those claimed, absent unexpected results.

6        Claim 25 is rejected under 35 U.S.C. 103(a) as being unpatentable over Matsunaga et al. (US 2001/0054206 A1) in view of Giuseppe et al. (US 5,744,127).

The disclosure of Matsunaga (US' 206 A1) as described above, does not teach or disclose dyeing compositions in forms of dyeing shampoos as claimed.

However, Matsunaga et al. (US' 206 A1) clearly teaches that no particular limitation is imposed on the form of the hair dyeing composition (see page 3, paragraph, 0027).

Giuseppe et al. (US' 127) in other analogous art of hair treating formulation, teaches compositions formulated as a hair shampoo and hair dyeing as well (see col. 6, lines 5-6).

Therefore, in view of the teaching of the secondary reference, one having ordinary skill in the art at the time the invention was made would be modified to formulate the dyeing composition of Matsunaga et al. in a shampoo form as taught by Giuseppe et al. to arrive at the claimed composition. Such a modification would be obvious because Giuseppe et al. clearly teaches that the dyeing composition can be formulated in a shampoo form, and, thus, one having

ordinary skill in the art would be motivated to formulate the dyeing composition in any form including the shampoo form, and would expect such a composition to have similar properties to those claimed, absent unexpected results.

***Allowable Subject Matter***

7       Claims 16-17 objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims. The prior art of record do not teach or disclose a hair dyeing composition comprising fluorescent of the claimed formula (F3).

**Conclusion**

8       The references listed on from PTO-1449 have been reviewed by the examiner and are considered to be cumulative to or less material than the prior art references relied upon in the rejection above.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Eisa B. Elhilo whose telephone number is (571) 272-1315. The examiner can normally be reached on M - F (8:00 -5:30) with alternate Friday off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Douglas McGinty can be reached on (571) 272-1029. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR

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system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Eisa Elhilo  
Primary Examiner  
Art Unit 1751

March 19, 2006